

83245LMB
Customer No. 01333



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Charles E. Romano

INK RECORDING ELEMENT

Serial No. 10/068,824

Filed 06 February 2002

Group Art Unit: 1774

Examiner: Pamela R. Schwartz

I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Christine Tolhurst

Christine Tolhurst

February 28, 2005

Date

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

SECOND DECLARATION UNDER RULE 132

1. I, Charles E. Romano, Jr., state that I am a resident and citizen of the United States. I obtained a Bachelor of Science degree in Chemistry from LeMoyne College in Syracuse, New York in 1982. I have been an employee of Eastman Kodak Company (hereinafter referred to as Kodak) since May of 1985. I have been assigned to work in product development and research of imaging processes, including areas relating to inkjet inks and inkjet elements.
2. I am one of the co-inventors of U.S. Serial No. US 10/068,824.
3. I prepared and coated the Examples described in the present Application in 2001. Copies of the original documentation relating to these Examples has been provided as Attachments C-1 to C-4.
4. I have prepared and coated a new set of experiments in January – February, 2005, duplicating the original experiments. These are included as Examples 1-4 and Control Examples 1-6 in Attachments D-1 to D-3.

5. A comparison of layer/melt composition OC-01 and OC-09 indicate that the overcoat layer compositions are identical, with the exception that a non-derivatized poly(vinyl alcohol) is used in the control, Control Example 5, while a derivatized poly(vinyl alcohol) is utilized in the inventive sample, Example 1.
6. As previously stated, the surfactants used in the overcoat layer of Example 1 were added as coating aids, without which repellencies would occur in manufacturing, resulting in an unacceptable coating.
7. As can be seen from Examples 1-4 in Attachment D-1, coated with surfactant, improvements in laminate adhesion are achieved over Control Examples 1-6, coated with surfactant, as are achieved by Examples 5-8 in Attachment D-1, coated without surfactant, over Control Examples 7-12, coated without surfactant. The presence or absence of surfactant affects the coating quality, not the laminate adhesion improvement.
8. Copies of the original documentation relating to these new Examples has been provided as Attachments D-1 to D-3.
9. I further declare that all statements made herein of my own knowledge are true and that the statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent resulting therefrom.

Date: 2-28-05

Charles E. Romano Jr.
Charles E. Romano, Jr.

A

8-8-01

(Interlayer)

Comments
written
9-11-01

Elvaxol 52-22	(10%)	→ 867g	Active	866.7g	28%
Witobond 232	(30%)	→ 104.1g		31.23	35%
Water		→ 1,729.5g		~40g dry	

~2.3% solids

C. Romano &
Shila A. Sader 11-21-01

Attachment C-4

USSN 10/068,824

ID	(0936-1 RL	IL	OC	Low Melt Gloss (08-08 ProLustre ProLustre Low Melt Gloss (08-09 EK3043 EK3044 EK3043 EK3044 Encad 700 Encad 700 00% CMY120% CMY100% CMY120% CMY100% CMY120% CMY100% CMY120% CMY100%				
				Galaxy	Arkwright	Encad QIS	Rexam LG	Rexam Mug-7
0947-1	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/POL-4455	162	1	1	2	227
0947-2	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/BAeMn	73	117	2	2	77
0947-3	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/AeMn	610	566	1	1	248
0947-4	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Glascol C44	135	164	2	1	489
0947-5	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Glascol RP3	0	0	2	3	177
0947-6	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Glascol RP4	0	0	3	2	427
0947-7	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Lucidene 243	67	2	4	2	101
0947-8	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Morcy 132	0	0	3	2	42
0947-9	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/U710	146	95	4	4	283
0947-10	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/U410	0	0	4	3	80
0947-11	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/AC-2538	3	120	4	2	363
0947-12	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/UCX 01-011	171	118	4	4	181
0947-13	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/UCX 99-027	126	59	4	4	173
0947-14	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Witcobond 253	164	128	3	3	53
0947-15	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/WD30	0	0	4	3	82
0947-16	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/DP6-7133	0	0	2	1	435
0947-17	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	DP6-7133	0	0	2	1	1
0947-18	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210	285	452	445	445	154
0947-19	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-200	629	671	3	1	333
0947-20	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-320	829	480	3	1	64
0947-21	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	OKS-3431	234	110	3	3	62
0947-22	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	OKS-3432	188	172	3	3	127
0947-23	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Galaxy OC	0	0	3	1	1
0947-24	Gel 7869		Z-210/POL-4455	0	0	1	1	385
0947-25	Gel 7869		Z-210/POL-4455	0	0	3	1	1

VE

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ID	.0936-1 RL	IL	OC	Low Melt Gloss (08-08 ProLustre ProLustre Low Melt Gloss (08-09			
				EK3043	EK3044	EK3043	EK3044 Encad 700 Encad 700 Encad 700
				00% CMY120% CMY100% CMY120% CMY100% CMY120% CMY100% CMY120% CMY100%			
Galaxy				5	4	5	5
Arkwright				3	3	3	3
Encad QIS				303	211		
Rexam LG							
Rexam Mug-7							
HP Photo							
0947-1	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/POL-4455	162	1	1	2
0947-2	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/BAeMn	73	117	2	227
0947-3	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/AeMn	610	566	1	656
0947-4	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Glascol C44	135	164	2	489
0947-5	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Glascol RP3	0	0	1	429
0947-6	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Glascol RP4	0	0	2	177
0947-7	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Lucidene 243	67	2	4	372
0947-8	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Morcy 132	0	0	2	47
0947-9	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/U710	146	95	4	101
0947-10	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/U410	0	0	2	427
0947-11	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/AC-2538	3	120	4	309
0947-12	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/UCX 01-011	171	118	4	42
0947-13	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/UCX 99-027	126	59	4	36
0947-14	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/Wicobond 253	164	128	3	335
0947-15	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/WD30	0	0	2	82
0947-16	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210/DP6-7133	0	0	1	181
0947-17	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	DP6-7133	0	0	1	173
0947-18	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-210	285	452	4	242
0947-19	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-200	629	671	1	64
0947-20	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Z-320	829	480	1	385
0947-21	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	OKS-3431	234	110	3	62
0947-22	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	OKS-3432	188	172	3	127
0947-23	Gel 7869	Elvanol 52-22/Wcb 232 (7/7/23)	Galaxy OC	0	0	1	
0947-24	Gel 7869		Z-210/POL-4455	0	0	1	
0947-25	Gel 7869		Z-210/POL-4455	0	0	1	



Prolustre LMG LMG LMG LMG
Encad 700 Encad 700 Encad 700 Encad 700 Encad 700
00% CMYK20% CMY100% CMY100% CMY120% CMY130% CMY

Pro Luster		(08-09-0)		Pro Luster		(08-09-0)		Low Melt Gloss		Pro Luster	
Encad	700	Encad	700	Encad	700	Encad	700	HP	5000	HP	5000
00% CMY20%		CMY100%		CMY120%		CMY100%		CMY120%		CMY100%	
1286	99	286	99	136	29	6	25	0	1	1	Galaxy
						5	3	0	2	0	Arkwright
				130	78			3	4	0	Encad QIS
				97	80			3	3	0	Rexam LG
				7	7			0	1	1	Rexam Mug-7
				54	228			4	3	0	HP Photo
					23			1	0	0	0947-1
				91	128			4	3	0	0947-2
				99	142			4	3	0	0947-3
				19	12			0	4	0	0947-4
				108	49			0	4	0	0947-5
				78	39			2	4	0	0947-6
				167	111			4	2	0	0947-7
				474	212	29	29	1	4	0	0947-8
										0	0947-9
				17	127			1	2	0	0947-10
				110	91			4	4	0	0947-11
				23	21			0	3	0	0947-12
				42	29			1	4	0	0947-13
										0	0947-14
										0	0947-15
										0	0947-16
										0	0947-17
				154	29	17	18	0	1	0	0947-18
				143	19	0	11	1	0	0	0947-19
				170	30	0	20	1	0	0	0947-20
						0	40	0	0	0	0947-21
										0	0947-22
										0	0947-23
										0	0947-24
										0	0947-25

Attachment D-1
USSN 10/068,824

		Immediately After Laminating	30 Hrs After Laminating	66 Hrs After Laminating	
Example	Surfactant	Peel Force (lbs/inch)	Peel Force (lbs/inch)	Peel Force (lbs/inch)	Coating Quality
Example 1	Yes	0.535	1.876	3.433	Good
Example 2	Yes	0.687	2.568	Paper Split	Fair/Good
Example 3	Yes	0.425	2.569	4.274	Good
Example 4	Yes	0.652	1.479	Paper Split	Fair/Good
Control Example 1	Yes	0.061	0.062	0.060	Good
Control Example 2	Yes	0.059	0.050	0.086	Good
Control Example 3	Yes	0.073	0.187	0.093	Fair/Good
Control Example 4	Yes	0.040	0.039	0.069	Very Poor
Control Example 5	Yes	0.044	0.034	0.037	Good
Control Example 6	Yes	0.025	0.060	0.049	Good
Example 5	No	1.265	3.199	Paper Split	Fair/Good
Example 6	No	0.120	0.370	0.999	Fair
Example 7	No	0.168	0.641	Paper Split	Poor
Example 8	No	0.088	0.993	Paper Split	Fair/Good
Control Example 7	No	0.010	0.041	0.037	Poor
Control Example 8	No	0.128	0.035	0.170	Poor
Control Example 9	No	0.098	0.038	0.059	Very Poor
Control Example 10	No	0.016	0.024	.0.028	Very Poor
Control Example 11	No	0.010	0.014	0.025	Fair/Good
Control Example 12	No	0.008	0.011	0.015	Good

Charles E. Romano Jr 2-24-05
 Ken Kosinsky 2-24-05

Attachment D-3
USN ID/068,824

Charles E Romano Jr 3-17-05
L3 O H11 1 /

SC5- 4254								Originator C Romano/ K Maskasky								Support: RC Paper F-surface CDT			
Conditions	DB	DP	Pres	Ft	User ID	L125610 / L594389			Date:	02/18/05			Coated by:						
Setting Sect.	44	30	0.3	39	Phone	x23004 / x77880													
Dryer No. Short	140	20	1	32	Pager	x50938													
Dryer No. 2	100	50	2	38	Prob.#	annual chg # has been provided													
Part	Slide 1	Slide 2	Slide 3	%	ml/	1/2 Pumps	Ctg. Spd.	Coating Description	Laydown	Linear	Notes	Part	ID						
ID	Melt #	Melt #	Melt #	solids	ft2	BL=#1 PUMP	ft/min		(mg/ft2)	Feet									
1		0C-01	2.0%	5.0	101.0	18		Z-320 PVA + Surfactants	100										
	BL-01	IL-01	5.0%	3.0	60.6	18		Elv 52-22 / W232 (7/7/23)	150	25	Example 1								
			10.0%	8.5	85.8	18		7869 Succinylated Pigskin Gelatin	850										
2		0C-02	2.0%	5.0	101.0	18		W144 / Z-210 PVA + Surfactants	100										
	BL-01	IL-01	5.0%	3.0	60.6	18		Elv 52-22 / W232 (7/7/23)	150	25	Example 2								
			10.0%	8.5	85.8	18		7869 Succinylated Pigskin Gelatin	850										
3		0C-03	2.0%	5.0	101.0	18		Z-210 PVA / W253 + Surfactants	100										
	BL-01	IL-01	5.0%	3.0	60.6	18		Elv 52-22 / W232 (7/7/23)	150	25	Example 3								
			10.0%	8.5	85.8	18		7869 Succinylated Pigskin Gelatin	850										
4		0C-04	2.0%	5.0	101.0	18		Z-210 PVA/Morcy 132 + Surfactants	100										
	BL-01	IL-01	5.0%	3.0	60.6	18		Elv 52-22 / W232 (7/7/23)	150	25	Example 4								
			10.0%	8.5	85.8	18		7869 Succinylated Pigskin Gelatin	850										
5		0C-05	2.0%	5.0	101.0	18		HEC Op300 + Surfactants	100										
	BL-01	IL-01	5.0%	3.0	60.6	18		Elv 52-22 / W232 (7/7/23)	150	25	Example 5								
			10.0%	8.5	85.8	18		7869 Succinylated Pigskin Gelatin	850										
6		0C-06	2.0%	5.0	101.0	18		K100LV + Surfactants	100										
	BL-01	IL-01	5.0%	3.0	60.6	18		Elv 52-22 / W232 (7/7/23)	150	25	Example 6								
			10.0%	8.5	85.8	18		7869 Succinylated Pigskin Gelatin	850										
7		0C-07	2.0%	5.0	101.0	18		A15 LV + Surfactants	100										
	BL-01	IL-01	5.0%	3.0	60.6	18		Elv 52-22 / W232 (7/7/23)	150	25	Example 7								
			10.0%	8.5	85.8	18		7869 Succinylated Pigskin Gelatin	850										
8		0C-08	2.0%	5.0	101.0	18		Carbose LT-30 + Surfactants	100										
	BL-01	IL-01	5.0%	3.0	60.6	18		Elv 52-22 / W232 (7/7/23)	150	25	Example 8								
			10.0%	8.5	85.8	18		7869 Succinylated Pigskin Gelatin	850										

SC5- 4254								Originator C Romano/ K Maskasky								Support: RC Paper F-surface CDT	
Conditions	DB	DP	Pres	Ft	User ID	L125610 / L594389			Date:	02/18/05							
Setting Sect.	44	30	0.3	39	Phone	x23004 / x77880			Coated by:								
Dryer No. Short	140	20	1	32	Pager	x50938			annual chg # has been provided								
Dyer No. 2	100	50	2	38	Prob.#												
Part	Slide 1	Slide 2	Slide 3	%	mlv	1/2 Pumps	Ctg. Spd.	Coating Description	Laydown	Linear	Notes	Part	ID				
ID	Melt #	Melt #	Melt #	solids	f12	BL= #1 Pl/Mp	ft/min										
9		IL-01		OC-09	2.0%	5.0	101.0	18	GH-23 + surfactants			100	Control				
		BL-01			10.0%	8.5	85.8	18	Elv 52-22 / W232 (7/7/23)			150	25	Example 5	9		
10		IL-01		OC-10	2.0%	5.0	101.0	18	7869 Succinylated Pigskin Gelatin			850					
		BL-01			5.0%	3.0	60.6	18	WO-320 + Surfactants			100	Control				
					10.0%	8.5	85.8	18	Elv 52-22 / W232 (7/7/23)			150	25	Example 6	10		
11		IL-01		OC-11	2.0%	5.0	101.0	18	7869 Succinylated Pigskin Gelatin			850					
		BL-01			5.0%	3.0	60.6	18	Z-320 PVA (no surfactant)			100	Control				
12		IL-01		OC-12	2.0%	5.0	101.0	18	W144 / Z-210 PVA (no Surfactant)			150	25	Example 5	11		
		BL-01			5.0%	3.0	60.6	18	Elv 52-22 / W232 (7/7/23)			850					
13		IL-01		OC-13	2.0%	5.0	101.0	18	7869 Succinylated Pigskin Gelatin			100	Control				
		BL-01			5.0%	3.0	60.6	18	Elv 52-22 / W232 (7/7/23)			150	25	Example 6	12		
14		IL-01		OC-14	2.0%	5.0	101.0	18	Z-210 PVA/W233 (no surfactant)			850					
		BL-01			5.0%	3.0	60.6	18	Elv 52-22 / W232 (7/7/23)			100	Control				
15		IL-01		OC-15	2.0%	5.0	101.0	18	7869 Succinylated Pigskin Gelatin			850					
		BL-01			5.0%	3.0	60.6	18	HEC Op300 (no surfactant)			100	Control				
16		IL-01		OC-16	2.0%	5.0	101.0	18	K100LV (no surfactant)			100	Control				
		BL-01			5.0%	3.0	60.6	18	Elv 52-22 / W232 (7/7/23)			150	25	Example 8	16		
17		IL-01		OC-17	2.0%	5.0	101.0	18	7869 Succinylated Pigskin Gelatin			850					
		BL-01			5.0%	3.0	60.6	18	A15 LV (no surfactant)			100	Control				
18		IL-01		OC-18	2.0%	5.0	101.0	18	Elv 52-22 / W232 (7/7/23)			150	25	Example 9	17		
		BL-01			5.0%	3.0	60.6	18	Carboe LT-30 (no surfactant)			100	Control				
					10.0%	8.5	85.8	18	Elv 52-22 / W232 (7/7/23)			850					

Charles E Romano & 2-17-05

SC5-4254								C Romano/K Maskasky								
Conditions	DB	DP	Pres	Ft	UserID	Originator			Support: RC Paper F-surface CDT							
Setting Sect.	44	30	0.3	39	Phone	L125610 / L594389			Date: 02/18/05							
Dryer No. Short	140	20	1	32	Pager	x23004 / x77880			Coated by:							
Dryer No. 2	100	50	2	38	Prob.#	x50938										
Part	Slide 1	Slide 2	Slide 3	%	ml/	1/2 Pumps	Ctg. Spd.	Coating Description	Laydown	Linear	Notes	Part				
ID	Melt #	Melt #	Melt #	solids	f2	BL= #1 PUMP	ft/min		(mg/l12)	Feet		ID				
19			OC-19	2.0%	5.0	101.0	18	GH-23 (no surfactant)	100		Control					
	IL-01			5.0%	3.0	60.6	18	EIV 52-22 / W232 (7/7/23)	150	25	Control					19
	BL-01			10.0%	8.5	85.8	18	7869 Succinylated Pigskin Gelatin	850		Control					11
20		OC-20		2.0%	5.0	101.0	18	WO-320 (no surfactant)	100		Control					
	IL-01			5.0%	3.0	60.6	18	EIV 52-22 / W232 (7/7/23)	150	25	Control					20
	BL-01			10.0%	8.5	85.8	18	7869 Succinylated Pigskin Gelatin	850		Control					
Toxic melts : none								Instructions: #1 pump BL; Short thread up, CDT, Melts & hoppers 105°F	Finish:	rolls						

Charles E Romano Jr, 3-17-05